

Appl. No. 10/629,232
Amdt Dated Pct. 3, 2006
Reply to Office Action July 3, 2006

REMARKS

Claims 1, 2, 4-7, 9, 11 and 13-15 are rejected under 35 U.S.C. 103(a) as obvious over Katsui (US 5559674). Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katsui (US 5559674) in view of McHugh et al. (US 6570763 B1). Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katsui (US 5559674) in view of Bright (US 5833472).

In response, Applicant amends claims 1, 4, 6, 12 and 16, withdraws claims 7 and 9-10, keeps 2, 3, 5, 11, 13-15 unchanged, and adds new claims 17-21.

Claims 7 and 9-10 are further withdrawn from consideration since they are related to species II of Figs. 3 and 4 and III of Figs. 5 and 6 of the instant application. Applicant did not suitably respond to the election/restriction requirement of Office Action dated June 28, 2005 concerning this application, and makes a correction thereof by this response. Once the generic claims are allowed, the withdrawn claims should also be allowed.

Regarding the amended claims 1, 12 and 16, each of them includes the features that at least a pressing beam is received in at least a corresponding channel between the pin fins and presses a base of the heat sink.

The heat sink 50 of the cited Katsui has a cover member 84 thereon. Thus, the cover 60 (61, 62) presses on the cover member 84, rather than being received in a channel defined between the fins 81 and resting on a base of the heat sink 50.

As can be clearly seen from Fig. 3 of the cited McHugh, the alleged pressing bars of the cover clip 30 abut against a top of the fins of the heat sink 70, rather

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than extending into the alleged slots between the fins and resting on a base of the heat sink 70.

Although Fig. 8 of the cited McHugh shows a clip 1 has a pressing bar extending into a slot between fins of a heat sink 9 and pressing downward a base of the heat sink 9, it is not obvious for a person skilled in the art to replace the cover 60 (61, 62) of Katsui with the clip 1 of Fig. 8 of McHugh to obtain the claimed subject matter of claims 1, 12 and 16 of the present invention. Details explanations are given below.

In Katsui, the heat sink 50 incorporates a fan assembly 83 in a space between the fins 81 thereof. To enable the airflow generated by the fan assembly 84 to effectively flow through the fins 81, the heat sink 50 has the cover member 84 over the fins 81. Should the clip 1 of Fig. 8 of McHugh is used in order to secure the heat sink 50 of Katsui to the integrated circuit package 20 in a manner like the features of the claimed subject matter of the present invention, the cover member 84 of the heat sink 50 of Katsui should be removed so that the pressing bar of the clip 1 of Fig. 8 of McHugh can extend through the slot between the fins 81 of the heat sink 50 and press the base of the heat sink 50 downwards toward the integrated circuit board 20. However, to remove the cover member 50 disables the heat sink 50 to perform its originally designed function and teaches away from the objects that Katsui intends to achieve. Accordingly, the alleged combination is not obvious for a person skilled in the art after reading Katsui and McHugh.

In conclusion, claims 1, 12 and 16 posses non-obvious features over the cited prior art references, and allowance thereof is respectfully requested.

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Claims 2-6, 11, 13-15 and 17-21 are also allowable since each of them depends on the independent claims, directly or indirectly.

Furthermore, new claim 19 defines the retention module having each of the standoffs located **between** two adjacent fixing arms of the retention module, which is taught in none of the Katsui, McHugh and Bright references. Therefore, new claim 19 should have more patentable weight.

New claims 17, 20 respectively define that the blocking portion of each of the pins abutting against the retention module **above** a corresponding positioning hole of the retention module. However, Bright reference discloses the upper portion of the insert 12 is received in the hole 33. Katsui and McHugh reference neither disclose the pins. Therefore, new claims 17 and 20 should have more patentable weight.

New claim 21 restricts each of the standoffs of the retention module located **between** two corresponding adjacent corners of the retention module. Such restriction is patentable over Katsui, McHugh and Bright references.

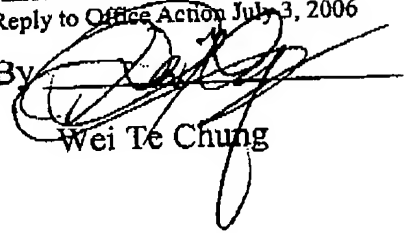
In view of the foregoing, the subject application as claimed in the pending claims is in a condition for allowance and an action to such effect is earnestly solicited.

Respectfully submitted,

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Appl. No. 10/629,232
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